EXHIBIT 1

UNITED STATES DISTRICT COURT

DISTRICT OF MINNESOTA

In Re: Bair Hugger Forced Air Warming Products Liability Litigation	)	
This document relates to all actions	)	MDL No. 15-2666

The videotaped deposition of JIM HO, in the above-styled suit, was taken pursuant to notice for discovery and/or evidentiary purposes, before Donna Gerbrandt CSR(A), at the offices of Borden Ladner Gervais LLP, Calgary, Alberta, Canada, on the 28th day of June, 2017.

(Proceedings commenced at 8:14 a.m.)

THE VIDEOGRAPHER: Here begins the videotaped deposition of Jim Ho in the matter of Re: Bair Hugger forced air warming products liability litigation, in the United States District Court, District of Minnesota, MPL No. 15-2666.

Today's date is June 28th, 2017. The time on the video monitor is 8:15 a.m. We are on the record.

The videographer today is Bernice Dubon on behalf of Amicus Reporting Group. The video deposition is taking place at the offices of Borden Ladner Gervais of Calgary, Alberta.

Would counsel please voice identify themselves and state whom they represent.

MR. BANKSTON: Mark Bankston on behalf of the plaintiffs.

MR. ASSAAD: Gabriel Assaad on behalf of the plaintiffs.

MR. GORDON: Corey Gordon on behalf of the defendants 3M and Arizant.

THE VIDEOGRAPHER: The court reporter today is Donna Gerbrandt on behalf of Amicus Reporting Group. Would the reporter please swear in the witness.

JIM HO, sworn

BY MR. BANKSTON

Q. Good morning, Mr. Ho.

A. Good morning.

Q. I'm going to be talking to you today about some opinions that you gave in this case. I understand -- you've given a deposition before; right?

A. That's true.

Q. Okay. How many times do you think you've been deposed before?

A. Once.

Q. One time. Okay. Then just as a little refresher, I know you don't do this all the time, it's just like we're in a courtroom, just there's no judge here. We're going to be asking each other -- I'm going to be asking you questions, you'll be giving me answers. We need to be really careful not to talk over each other. She's writing everything down. So we'll try to pause between each other. You know, sometimes in natural conversation you tend to interrupt each other, finish each other's sentences. It's tough to do that for her so we'll try to avoid that.

I also know, not being an

your education. I know you have a bachelors and a masters in microbiology?

A. True.

Q. Okay. The PhD is in microbial chemistry?

A. Right.

Q. Do you have any other advanced education?

A. Yes. I spent a lot of time understanding aerosol technology. The nature of the work I was doing required that I understand all -- all the subjects involved with aerosol technology.

Q. Okay. Is that -- is that knowledge you acquired at the Department of National Defence?

A. It's mostly through attaining -- attending conferences --

Q. Okay.

A. -- working with colleagues, and mostly hands-on, intending to use instrumentation to characterize and define aerosol characteristics.

Q. Okay. You would agree that your career has been spent as a researcher for the Canada's Department of National Defence?

A. That's correct.

Q. In your report you divided your career up into pre 1990s and post 1990s. Is that a good way to divide your career, you think?

A. Yeah, yes.

Q. Okay. I understand that the first part of your career was what we were just talking about, correct, the understanding of biological aerosols?

A. Yeah.

Q. Okay. And you would agree an aerosol is either a solid or a liquid particle suspended in the air?

A. Say again.

Q. An aerosol is a solid or a liquid particle suspended in the air?

A. That's right.

Q. Okay. You would agree that aerosols travel along the current of the air?

A. True.

Q. Okay. Now, your career post 1990s has been primarily of the development of biological detection systems; correct?

A. Yes, but the -- but the mandate from the very beginning of my career was to develop biological detection technologies.

Q. Okay.

developing the technology.

Q. Okay. And would you agree that for nearly 30 years you've been in the practice of developing devices and using -- using or selling them to various clients and the government and others?

A. That's not exactly true. My job is to develop the hardware and the software technology for military applications, which is Canadian military, and -- and selling it really was not my job.

Q. Okay. What hardware and software technologies did you use in this case?

A. Well, the final instrument that performed the task of detecting the presence of live agents was what we would call -- it's an abbreviation, F-L-A-P-S, FLAPS.

Q. Okay.

A. So I found that it is not just good enough to develop an instrument that you think is good enough. You actually have to go out -- outside of the laboratory and demonstrate that it works in the -- in the environment it was -- it was set for, which is military -- military conditions, which is outdoors.

to determine what the name of the microorganism is. And then once you discover that, then you know whether it is going to be disease causing or not.

Does that go along with what you're expecting?

Q. Not exactly, but let's get more specific. And I think that will help us, if we get a little more specific. For instance, are you an expert in evaluating clinical outcomes in healthcare settings?

A. No.

Q. Okay.

A. Yeah.

Q. Are you an expert in hospital air quality?

MR. GORDON: I object to the form of the question.

A. I -- I'm not sure what you're trying to understand from that question, but you would notice that we have done some experiments with the -- with the wind tunnel to determine how you may be able to detect presence of biological particles in a clean room condition. So if you could -- if you could transpose that into what you're asking, then the answer would be yes. If you don't accept that,

jury of 12 Americans that you're an expert in the field of microbiology; correct?

A. I -- I would say that if that's what they consider having spent 30 years in -- in bio aerosol as an expert, then that is fair enough.

Q. Okay. Are you an expert in operating rooms?

A. No.

Q. Okay.

A. No.

Q. Are you -- do you have any expertise on the levels of bioburden within an operating room?

A. No.

Q. Okay. So you wouldn't be able to tell me, for instance, does every area in an operating room have equivalent levels of bioburden?

A. I -- I cannot say with a blanket statement.

Q. Okay.

A. Nor can anybody else really.

Q. Well, would you agree with me -- do you have any expertise to say whether the area underneath the surgical table has more bioburden than other parts of the room?

A. No. Yeah.

Q. You're not an expert in orthopedic surgery, are you?

A. No. Apart from the fact that I'm the son of an orthopedic surgeon. Does that help any?

Q. Again, I'm not -- I'm not answering questions today.

A. Yeah.

Q. I can't -- I can't help you along. You know, that's -- I can let you answer questions is what I can do.

A. Yeah. Yeah.

Q. But do you -- do you think that you could comfortably represent to a jury of 12 Americans that you being the son of an orthopedic surgeon makes you an expert qualified to give opinions in a lawsuit?

A. That would be a bit far fetched.

Q. I would think so. Okay. You're not an expert in anesthesiology, are you?

A. No.

Q. You're not an expert in infectious disease?

A. It would be safe to say no, but in the work area that I'm in I have to be aware of what are the threat agents for the Canadian military,

and for that matter we need to know a lot about infectivity, if that's what you're driving at.

Q. Can you describe to me what a peri-prosthetic joint infection is?

A. No.

Q. Okay. So do you have any -- I mean, I assume since not giving a definition, you wouldn't consider yourself as having specific expertise in peri-prosthetic joint infections?

A. No.

Q. Okay. Did you know anything about the device before accepting work in this case? And by "the device" I mean the Bair Hugger surgical warming unit.

A. No.

Q. You're not an engineer; correct?

A. That's correct.

Q. You're not a biomedical engineer?

A. No.

Q. What do you understand the device to do, the Bair Hugger?

A. From the description that was -- that I read and what was told to me, it's a technology or a device that provides warming features for a patient under -- under operation.

Q. Okay. Have you ever seen the device?

A. No.

Q. You would agree with me that as an expert you need to understand the nature of the problem being claimed in order to investigate it?

MR. GORDON: I object to the form of the question.

A. I -- I need to -- to know exactly what -- what is the -- the issues at hand.

BY MR. BANKSTON

Q. Yeah, that's a good way to put it. Like, for instance, in a lawsuit the issues at hand is what the plaintiff is claiming happened to him because of this device; right?

MR. GORDON: I object to the form of the question, also lack of foundation.

BY MR. BANKSTON

Q. Would you agree with that?

A. Well, if I -- if I were to give -- give an impression of what biological aerosols are, would I need to know any of the things that you say I need to know?

Q. Well, I haven't even said anything. I'm wondering what do you think the issue is that you're here to address?

Q. Okay. For instance, do you understand what the plaintiffs are claiming happened to them in this case?

A. If I understand correctly, they claim that the air coming from a Bair Hugger has the potential to cause infections.

Q. You mean -- and you mean the air being exhausted out of the Bair Hugger?

MR. GORDON: I object to the form of the question.

A. I -- I -- I wouldn't know if it is exhausted or coming from it, but that's the overall impression.

BY MR. BANKSTON

Q. Have you seen the plaintiffs' complaint before?

A. What do you mean?

Q. Oh, okay. I forget. I'm asking you questions like you're an expert who comes to depositions every week. When I say "complaint" --

A. Yeah.

Q. -- actually that's a legal term --

A. Yeah.

Q. -- meaning the initiating document of a lawsuit. Have you ever seen that document where

the plaintiff sets forth why they think 3M is responsible for something?

A. I don't believe so.

Q. Okay. Do you have an understanding of how the plaintiffs believe the Bair Hugger caused their infections?

A. I don't -- I don't think so.

Q. Okay. The first topic I really want to talk to you about in your report is regarding the size of particles. You know that there's a discussion about the size of particles and the size of biological aerosols?

A. Right.

Q. Okay. Did you bring a copy of your report with you today?

A. I did.

Q. Okay. Do you want to get that out for me and we'll take a look at it together.

Now, Mr. Ho, before we dive into the report itself, I want to talk generally in terms of what you reviewed to create this report. From what I understand, everything that you reviewed is cited somewhere in the report?

A. Yeah. It's open literature material.

Q. Okay. So you would agree with me that

A. I don't think I say that.

Q. Okay. You gave opinions about filters; right?

A. Yeah.

Q. Okay. You know what I mean when I talk about a MERV 14 filter?

A. Yes.

Q. Okay. You believe that a MERV 14 filter is adequate inside the Bair Hugger; correct?

A. Yes.

Q. You believe that HEPA filters are overkill for this application?

A. That is a quotation from a source.

Q. Do you believe that HEPA filters are overkill in this application?

A. Are you wanting an opinion right here now?

Q. Hmm hmm. That's what you're here for, sir.

A. Yeah, I think HEPA filters are more than what would be required.

Q. Required for what?

A. For the -- the purpose of what the instrument is supposed to do.

Q. Okay. And in terms of the filter, what

correct?

A. That's right.

Q. Okay. You will agree with me, though, that the reason you want to keep particles out of an operating room to an absolute minimum is to prevent the incident of surgical infection; correct?

A. Now, where are we going with this one again? You already said that I'm not -- I'm not an expert in clean-room facilities.

Q. Okay.

A. And why are you asking me that question again?

Q. So you can tell me that's not a question you're qualified to answer?

A. Yeah.

Q. Okay.

A. I'm simply -- I'm simply here to provide you with insight into -- into bio aerosol technologies.

Q. Okay. And I appreciate that. I want you to tell me whenever that's true.

A. Yeah. Yeah.

Q. Whenever I'm talking or asking you a question about something you're not qualified to

talk about, tell me "That's not why I'm here, Mr. Bankston. I'm here for a totally different reason."

A. Yeah.

Q. That's totally fine. I don't have any problems with that. Let's talk a little bit more about this MERV 14 filter. You say -- let's go to page 25 of your report.

A. Got it.

Q. Okay.

MR. GORDON: Did you say 24?

MR. BANKSTON: 25.

Q. All right. Do you see the section that starts with D. --

A. Hmm hmm.

Q. -- MERV 14 filtration?

A. Yeah.

Q. Okay. You see the second sentence in that paragraph?

A. Yeah.

Q. It says: "Standard charts list this specification: removal of all bacterial particles sized within .3 to 1 micron."

A. Yeah.

Q. Do you see that?

Q. Yes. Yes. So you understand that this purpose is to provide an assessment of the filter efficiency on the Bair Hugger system and the efficiency level of the current filters? Do you see that's what this document says?

A. Right.

Q. And you see how there is a "3M Confidential" up at the top of the document?

A. Hmm hmm.

Q. Okay. On the bottom of -- the bottom corner of this document you'll see a number that starts with 3MBH; correct?

A. Right.

Q. Okay. And the number here starts with 89. The part of this document that I would like to ask you about today is going to be -- the final numbers are going to be 96. So if you can flip to 96 for me. That's the part I would like to ask you a question about.

Okay. Perfect. Now, you see that there's been a portion of that document that's been highlighted that reads "Table 3. No load (initial) tests for Model 775 filter." Do you see where that is?

A. Yeah.

this table, the Bair Hugger filter does not remove all particle sizes within .3 to 1 micron?

A. That's what it says.

Q. Correct. In fact you would also agree with me that the Bair Hugger filter does not even remove all particles between 1 and 3 microns; correct?

A. Right.

Q. Now, that's a little bit different than the standard specification that you discussed in your report; correct?

MR. GORDON: I object to the form of the question. It misstates the evidence.

A. Are you referring to the 99 percent numbers?

BY MR. BANKSTON

Q. No. What I'm actually referring to is remember when you told me that a MERV 14 filter by specification will remove all particles sized .3 to 1 micron? Do you remember telling me that?

A. Right.

Q. Now, that is not -- this Bair Hugger filter test that you have in front of you, that does not meet that standard, does it?

A. It does appear to be slightly different.

Q. In other words, from this chart we can see -- let's go down all four lots that were tested. In the first lot it only removed 83 percent of those particles; correct?

A. Yeah.

Q. In the second test it only removed 82 percent; correct?

A. Yeah.

Q. In the next test it only removed 75 percent; correct?

A. Yeah.

Q. And in the next test it only removed 78 percent; correct?

A. Correct.

Q. So it does not meet the standard in which you expressed in your report; correct?

A. Right.

Q. Okay. Thanks. Are you familiar with what a HEPA filter is?

A. Yes.

Q. Okay. Are you familiar with the specifications for a HEPA filter?

A. I don't have the numbers handy, but in general.

Q. Let me throw out a number and see if it

MR. GORDON: I object to the form of the question. That is not -- you misread it.

BY MR. BANKSTON

Q. All right. Let's read the whole thing. "According to table 8.2 of Kowalski, a MERV 14 filter will remove Staph. aureus with 97% efficiency..." Is that a correct reading of that?

A. Yeah.

Q. So by some fairly simple subtraction we know that 3 percent of staph aureus organisms will pass through this filter; correct?

A. You can assume that.

Q. Okay. Do you agree that in selecting a filter for use in a healthcare setting you need to know the environment in which it's going to be used?

MR. GORDON: I object to the form of the question. Vague, ambiguous, lack of foundation, incomplete hypothetical.

A. There is a "but" to that question?

BY MR. BANKSTON

Q. A "but?"

A. Yeah. Do you have some follow-up to that question?

Q. I'm sure I'll have more questions, yeah.

A. Yeah. So what is the question again?

Q. When you're selecting a filter for use in a healthcare setting, do you need to know the environment of use?

MR. GORDON: I object to the form of the question.

A. If I were designing an instrument? Is that what you're saying.

BY MR. BANKSTON

Q. No. I'm actually asking if you're selecting a type of filter for use in a healthcare setting. Not if you're making a device. Like just if you're picking a filter. If you're going to pick a filter, do you need to know the environment it's going to be used in?

A. That's sort of a vague question, though, because it's hard to really answer that question unless I know what is it that you really want to point at.

Q. Okay.

A. There seems to be a second part to that question, depending on whether the answer is yes or no.

Q. Okay. So in terms of --

A. Come right out to the question and see --

Q. That's my question. I'm wondering -- let's say I have a job, and my job is to pick a filter.

A. Pick a filter.

Q. I'm going to pick a filter for an application.

A. Yeah.

Q. Do I need to know where the filter is going to be used if I'm going to pick that filter safely?

A. It would be helpful.

Q. In order to determine if a filter is safe in a given application, you might need to know the environment of use; correct?

A. When you say "safe," how would -- how would that mean? Is that an absolute term or is it a --

Q. That's a good point.

A. -- is it something that is adequate for the job?

Q. Yeah. Let's phrase it in the way it's done in your report, for instance. You say that a MERV 14 filter is adequate for this application?

A. Yeah.

Q. I would assume when you speak of "adequate," that means reasonable in terms of patient safety as well; right?

A. Yeah. That's a bit of a stretch, though.

Q. So let me make sure I have this clear. When you say that a MERV 14 filter is adequate, you're not talking about patient safety?

A. You -- you really want to narrow it down to what -- what the issue is at hand.

Q. That's absolutely why we're here, yeah.

A. Yeah.

Q. Right. Okay. So let me ask it again.

A. Right.

Q. Okay. When you say in your report, your words, a MERV 14 filter is adequate in this Bair Hugger --

A. Yeah.

Q. -- do you mean from a patient safety point of view?

A. A patient safety could be interpreted in a variety of directions. So in this case you are -- you're really trying to equate filter X, safety, yes; filter Y, safety no, and I can't

answer that question.

Q. Okay. So you cannot give the opinion that the Bair Hugger filter is adequate from a patient safety perspective?

A. I -- I can say that the filter selected is adequate for the performance of the instrument. And I want to take safety out of it because -- because safety is a whole different issue.

Q. Okay. So in terms of -- you're a designer of devices; correct?

A. I do some of that, yeah.

Q. Okay. And so sometimes when making a device you have to understand if a component that you're using in the device is going to have a negative effect and make your device not work or whether it will work fine with that component. Is that simple enough?

A. Hmm hmm.

Q. Okay. So what I -- oh, is that a yes?

A. Yes.

Q. And I don't mean to be rude about it.

A. Yeah. Yeah.

Q. She can't take down --

A. Right. Right. Sorry.

Q. No problem. So am I correct, when you

say the Bair Hugger filter is adequate, that's in terms of the function of the device?

A. Yes.

Q. Okay.

A. Yeah.

Q. So what I want to make sure, so when one day if we get to trial, is you're not making any representations to this jury about whether that Bair Hugger filter is adequate from a patient safety standpoint?

A. Again I like to emphasize the fact that when you -- when you attach safety and -- and selection of material, then you are making a very huge leap in faith in saying that. So -- so I'm only speaking from the standpoint of an aerobiology technical person. So the future that is selected is adequate for what the instrument is supposed to do.

Q. You mean it's adequate for the device to be able to blow hot air on the patient to warm them for surgery?

A. It's adequate to provide the airflow characteristics that -- that the end result is called for.

Q. Okay. In terms of is that filter

sufficient to provide reasonable assurance that a patient will not suffer peri-prosthetic joint infection, that's probably not something you can talk about today?

A. No.

Q. Okay. Let me ask that in another way because I want to be very specific, not just about peri-prosthetic joint infection. You would agree with me you do not have the necessary qualifications and expertise to state the level of filtration that is needed in the Bair Hugger to maintain clinically safe levels of air quality in an ultra clean operating room during an orthopedic procedure?

MR. GORDON: I object to the form of the question.

BY MR. BANKSTON

Q. Do you agree with that? And if you need to, I can repeat it and we can do it again.

A. You're saying if I do or do not have an expertise in designing something?

Q. No, no, no. This is very, very specific so let's go one -- let's go real slow.

A. Okay.

Q. Okay. What I'm asking is are you

that Elghobashi relied upon and that counsel was incorrect.

MR. BANKSTON: I thought it was Kalliomaki, but I guess not. I guess he could have.

MR. ASSAAD: No. No. Elghobashi went in a different.

MR. GORDON: Yeah, Villafruela.

MR. BANKSTON: Yeah. It was an isolation room, yeah, but performed before an operating room. We'll still get some mileage out of Kalliomaki, though. Don't worry about that.

BY MR. BANKSTON

Q. All right. Let's talk a little bit about particle count. You're familiar with the practice of particle counting; right.

A. Yes.

Q. You don't believe that particle counting can be predictive of microbiological contamination of air in an operating room, do you?

A. I do not.

Q. Okay. A lot of people disagree with you about that. Do you recognize that?

MR. GORDON: I object to the form of the question, lack of foundation, assumes facts

Now, you would agree with me that the conclusion of Mr. Stocks -- excuse me, of Dr. Stocks and his team is that particles are a reasonable surrogate for bioburden?

A. Why do I have to agree with you?

Q. You don't have to. I'm asking if you do.

A. Yeah. The answer is no.

Q. No, you don't agree with that. So if somebody was to say Stocks and his colleagues were able to demonstrate that particles are a reasonable surrogate for bioburden, you would say no, that's a wrong opinion?

A. Correct.

Q. Okay. Are you familiar with a Russell Olmsted with the National Institute of Health?

A. What is this in relation to?

Q. I'm just wondering if you know the man.

A. No.

Q. Okay.

A. Yeah.

MR. BANKSTON: 4.

Q. Okay. So one of the things we had talked about with Stocks, right, is the people who

have studied this, is they haven't really followed the right methodology to really measure this. Is that part of your contention?

MR. GORDON: Objection, form of the question.

A. If you were to look at one of the figure studies he's presented --

BY MR. BANKSTON

Q. Hmm hmm.

A. His Figure 1. Do you see it?

Q. Sure. Yeah. Let's look at Figure 1.

A. Yeah.

Q. Okay.

A. Okay. He's based all his conclusions on Figure 1.

Q. Okay. So --

A. And if you -- if you have any training in measurements, particle analysis, and all the other good things that one would have to have, you would look at that Figure 1, right away would say that this is scattered data all over the map.

Q. Okay.

A. Wouldn't you agree?

Q. I don't have any expertise to -- I would rely on somebody who is an expert.

A. Okay. So as a person who has measured particles, live agent, everything else, that's definitely bad data.

Q. Anybody who has measured particles for a living would know that's bad data?

A. Yeah.

Q. Okay.

A. Very bad.

Q. Very bad? Okay.

A. And his whole conclusion is based on that observation.

Q. Okay. So there's, according to you, some methodological problems and this is not good stuff?

A. On top of that the data was fudged.

Q. Okay. The data was fudged?

A. Yeah.

Q. What do you mean by that?

A. Well, somewhere along the way his raw data did not fit his expectations so he took it upon himself to do a data transform.

Q. Why do you say that? Where do you get that from?

A. He said that.

Q. Okay. Where is that in his -- oh,

BY MR. BANKSTON

Q. Now let's move on.

MR. GORDON: It misstates the evidence.

BY MR. BANKSTON

Q. The second -- the second paragraph of that email.

A. Yeah.

Q. Do you have Exhibit 26 in front of you?

A. Yeah.

Q. Now, Mr. Olmsted says that he has done investigations where he used electronic particle counts; correct?

A. He said that, yeah.

Q. Okay. And then he says: "...it appears this group was able to demonstrate particle counts serve as a reasonable surrogate for bioburden of air in an OR."

A. Yeah.

Q. You disagree with that?

A. Totally.

Q. Okay. And I believe you also told me that anybody who has done particle counting would immediately recognize that that's not true?

A. Correct.

correlates with airborne colonies and represents an acceptable surrogate for daily assessment of cell-processing cleanroom performance"

A. So are we done with the Stocks paper?

BY MR. BANKSTON

Q. Yeah, we're done with that. You can put that away.

I've handed you, sir, what has been marked for the purposes of this deposition as Ho Exhibit 1. Do you see in front of you a paper by Raval et al, and I'm going to read the title. "Real-time monitoring of non-viable airborne particles correlates with airborne colonies and represents an acceptable surrogate for daily assessment of cell-processing cleanroom performance." Did I read that title correctly?

A. You read the title correctly.

Q. This is not something that you reviewed in coming to your opinions in this case; correct?

A. That's correct.

Q. Have you ever seen this study before?

A. No.

Q. Okay. Do you see on the results where

it says "viable and nonviable particles were well correlated?"

A. It says that.

Q. Describe what it means to me if those particles are well correlated? What does "well correlated" mean?

MR. GORDON: Well, you're going to have to give him the opportunity to read the study if you want him to comment on specifics.

BY MR. BANKSTON

Q. Well, I just want to know what "correlation" is. Do you know what it means when things are correlated, two different findings are correlated?

A. Let me -- can I flip through some of the results and interpretation --

Q. Yeah. I'm not going to stop you.

A. -- before I -- before I get too deep into this thing?

Q. Hmm hmm. Dr. Ho, if you just want to read the whole thing, I'm going to take a little --

A. Yeah, sure.

MR. BANKSTON: Go off the record for a second.

THE VIDEOGRAPHER: We are going off the

A. Yeah. Yeah.

Q. So when it comes to whether forced air warmers affect the risk of surgical site infection in operating rooms, you don't have an opinion?

A. No.

Q. Thank you, sir.

A. Yeah.

Q. The next sentence states:

"Other areas of the hospital caring --"

Excuse me.

"Other areas of the hospital caring for high-risk patients with increased risk of nosocomial infection, such as burn units and hematology/oncology wards, have put air monitoring and quality systems into place..."

Do you see that?

A. I see that.

Q. Okay. The final sentence states:

"Thus reduced airborne particulates appear to correlate with a decreased risk of nosocomial infections in high-risk patient

populations."

Do you have any opinions about whether that statement is scientifically valid or not?

A. That statement came out of the blue. It has got no real backing to it.

Q. Okay. So your opinion is that statement has no support and is not true?

A. No.

Q. Okay. Yes? I'm sorry, it's --

A. No. No. No.

Q. And the question asked is you said it was not true. There's the negative thing, and I think you're saying the opposite of what the transcript is going to reflect.

A. It's not -- it's not true.

Q. So you're saying this statement is not true?

A. Yeah.

Q. So this is another piece of peer-reviewed literature which disagrees with you, which you say is wrong?

A. Correct.

Q. Okay. These -- these authors here, I take it you also say that they don't know what they're doing either; right?

Q. Okay. So this is not something that you relied on when coming to your opinions about whether particles are proxies for bioburden?

A. Come again.

Q. This is not something that you reviewed when coming to your opinion that particles are not proxies for bioburden?

A. Yeah, I haven't seen this paper before.

Q. Okay. I'll tell you what? You want to take -- this one isn't too long, actually. This one only has about -- it looks like eight pages of text. If you want to review this to see if there's anything you want to look at before I start asking you questions, I'm going to ask you a few questions about this before we go to lunch.

A. Okay.

MR. GORDON: Did you say Darouiche was a microbiologist?

MR. BANKSTON: No. That him being in microbiology, I thought he might be familiar with his work in microbiology. Because, as you see, it's a study of airborne microorganisms. I thought it might have hit his Google alerts.

A. Do you have a copy that is not smeared?

Q. Yeah. That I sure don't, unfortunately.

Q. In this lawsuit --
A. Yeah.
Q. -- what you're here to testify about --
A. Right.
Q. -- is implant infections?
A. Right.
Q. Okay. You understand that the mechanisms, the biological, the physiological mechanisms by which an infection happens incisionally versus peri-prosthetically are different mechanisms? Do you have enough expertise to know that?
A. I don't --
MR. GORDON: I object to the form of the question.
A. Yeah. I think it's a bit technical for me here.
BY MR. BANKSTON
Q. Okay. Let's move on then to -- into that paragraph. That first part we were talking about was one of their findings. Another finding that they had was -- you see right after it says "Figure 4" there's a new sentence. And it says:
"CFU density was positively related to total particulate density ... in

the control group, indicating that airborne [particulate] counts may be used as a proxy for ambient CFU density."

I want to ask you about some terms that are used in there. First, because I don't think we've defined it so far, a CFU is a colony-forming unit; correct?

A. Yeah.

Q. Okay.

A. Yeah.

Q. And in this case, when they talk about CFU density, we can think about that as the amount of -- the total amount and concentration of airborne biological mass that they're measuring; correct?

A. Right.

Q. Okay. And their conclusion is, is that airborne particle counts correlate well and can be used as a proxy for the CFUs.

A. What do you make of the following sentence after that?

Q. We're going to keep going. Lets stay one step at a time.

A. Yeah.

Q. Stop trying to figure out where we're going here, Mr. Ho. Let's try to answer the questions that are in front of you.

You understand that they found that airborne particle counts may be used as a proxy for ambient CFU density? That's what their statement there says?

MR. GORDON: I object to the form of the question.

BY MR. BANKSTON

Q. Correct?

A. That's what they say here.

Q. And that's something that you disagree with?

A. Right.

Q. Right. So much like the study by Stocks and his team, which you say you don't agree with --

A. Right.

Q. -- much like the study of Dr. Raval and his team, which you don't agree with; much like the statements of Mr. Olmstead, 3M's retained consultant, you don't agree with, you also don't agree with the seven researchers in this study that that can be used as a proxy between particulates and airborne biological matter?

A. -- the interpretation of data is so important.

Q. I'm not asking you if it's important. Why --

A. Authors --

Q. Why are they wrong?

A. Authors always wish to say things that they set out to say. You know that.

Q. Hold on. Are you -- are you claiming that Dr. Darouiche set out to prove a certain proposition in this report?

A. Well, maybe --

Q. What evidence do you have of that, sir?

A. I'll let you in on a dirty little secret in that the purpose of somebody going to do a bunch of experiments is to hopefully get data to back up his expectation in the first place.

Q. So you're saying --

A. Are you surprised --

Q. -- that you believe --

A. -- to hear that?

Q. I'm not -- I'm not surprised to hear anything from you today.

A. Because --

Q. What I'm -- what I'm asking you is do

You don't know Dr. Darouiche?

A. No.

Q. You don't know what his motivations were in doing this study?

A. No.

Q. Do you know what his hypothesis was?

A. Well --

Q. Do you know?

A. He thinks that first and foremost he could connect the infections that he saw with the concentration of culturable particles in the air.

Q. That's his conclusion; right?

A. He set out to show that.

Q. Where do you see that he set out to do that? Where is his hypothesis, sir?

A. Well, it's in the introduction.

Q. Where does it say that he wanted to prove that this was true?

A. Well, if that's not what he wants to show, then why bother to do any work?

Q. So we don't do science unless we have an agenda? Is that what you're saying, sir?

A. Well, look at the title. The whole title says that's what he intends to do.

Q. You think that the title --

A. Yeah.

Q. -- which represents the findings of this study --

A. Yeah.

Q. -- represents what his agenda was in doing this study?

A. Exactly.

MR. GORDON: Objection, argumentative.

MR. BANKSTON: All right.

Q. So according to you, Dr. Darouiche's work and the work of his entire team is tainted because apparently they had some sort of agenda or motivation?

A. I didn't say that: I simply say that the data that is presented does not support the statement they are making.

Q. Why not?

A. Well, as I've said, look at the --

Q. I'm looking at it. Tell me why.

A. Look at Figure 4 and 5 in particular. Look at the -- are you familiar with the 95 percent confident interval?

Q. Pretend I'm not.

A. Okay. Look at -- look at Y Figure 4.

Q. Okay. You knew that study is not controlled; right?

A. What do you mean by "controlled?"

Q. I mean, it has -- it's not a controlled study. You understand that?

A. You mean they did not use a control experiment?

Q. Correct.

A. Okay.

Q. Right. And you knew that from reading Dr. Yadin David's report; correct?

A. Yeah.

Q. That that Huang study was not controlled?

A. Right.

Q. All right. Now let me ask you something about controlled experiments. The Huang study is still useful to you; right? You still find it to be a useful study?

A. Come again.

Q. The Huang study --

A. Right.

Q. -- is a useful study to you? You find it to be a useful piece of literature?

A. Yeah, I would say that.

Q. Yeah. You cited it as support for some of your opinions you're giving; correct?

A. Right.

Q. Now, what I want to know is does the fact that Huang in his biological study, does the fact that he didn't do a controlled study, does that mean that he's not familiar with microbiological concepts?

A. I can't state that. I can't say that.

Q. Okay. So just because somebody doesn't use a control, that doesn't necessarily mean that they're not familiar with how to do a proper microbiological study? Is that your testimony?

A. That's fair.

Q. Okay. Thank you, sir. You know, again, and I'll just circle back because we're going to cover them again, Huang is one of these studies that involved a predecessor model Bair Hugger in 2002; correct?

A. If you say so, yes.

Q. Well, you reviewed -- you're responding -- one of the things you're doing in this case is responding to the report of Dr. Yadin David; right?

A. You see, I -- when I was starting to

Q. Did you have any assistance in the writing of your report?

A. No.

Q. So this section here, you wrote this?

A. Yeah.

Q. Okay. Let's talk about page 18. Do you see where the first full paragraph talks about Albrecht and his colleagues?

A. Right.

Q. Okay. You talked -- you make one point, but what I want to go to is your second point here. Do you see where you say "On their second aim..."?

A. Right.

Q. Okay. It says: "On their second aim, it would appear [that] the authors were not familiar with microbiological concepts as the experimental design had no control." Correct?

A. Right.

Q. Do you remember when we talked about the Huang study and it not having a control?

A. You -- you mentioned that, yes.

Q. Yes. And you told me that the fact that it didn't have a control doesn't mean that they weren't unfamiliar with microbiological concepts. Do you remember telling me that?

A. I might have said that.

Q. Yeah. And you're saying the exact opposite here about Mr. Albrecht, aren't you? You're saying the fact that he didn't have a control means that he's unfamiliar with biological concepts. Correct?

A. Yes.

Q. So when it comes to literature that hurts 3M's case, you make what's essentially a criticism of this author. You attack his qualifications and his credibility saying he's not familiar with microbiological concepts because he had no control. But when you had a study that was favorable to the client who has hired you, you didn't mention that it wasn't controlled, nor did you criticise those authors, did you?

A. No.

Q. And you knew when you wrote your report that Huang was not controlled?

A. No.

Q. You did know that; correct?

A. Well, it might have -- I might have noted that, but it wasn't something that I jumped on.

Q. Right. Because you're only going to

insult an author if he's critical of 3M, not if he's in favor of 3M; right?

A. Right.

Q. Yeah. You're not going to criticise authors that are favorable of 3M; correct?

A. Right.

Q. Understood. So you remember back when we were talking about are you writing an objective independent report or are you doing a report to advocate for 3M, this is a report which is bias in favour of 3M, isn't it?

A. Are you saying that?

Q. I'm asking you if you believe it. Considering that you criticized one author for something, told us he wasn't familiar with microbiological concepts, but knowingly didn't even include the fact that this other author had no control and didn't criticise him at all, that's a form of bias, isn't it?

A. No.

Q. You don't think that's bias?

A. No.

Q. You don't think it's a little bit unfair to insult Mr. Albrecht and accuse him of having no familiarity of microbiological concepts --